

ABSTRACT OF THE INVENTION

The present invention provides a high energy solid propellant containing an oxidizer, binder and fuel, wherein the fuel and/or the propellant as a whole is encapsulated or microencapsulated so as prevent premature reaction while still maintaining the energetic properties thereof. The oxidizer is preferably ammonium perchlorate, ammonium nitrate or ammonium dinitramide. The binder is preferably polymeric hydrocarbons or polymers. The fuel is preferably lithium hexahydridoborane or lithium hexahydridoalane.